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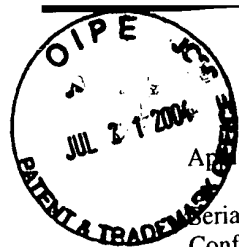
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7-22-04

AF 1774 \$
17N**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): EUGENE G. JOSEPH et al.

Group Art Unit: 1774

Serial No.: 09/847,942

Examiner: Camie S. Thompson

Confirmation No.: 6169

Docket No.: 56654US002

Filed: 2 May 2001

Title: PRESSURE SENSITIVE ADHESIVE FIBERS WITH A REINFORCING MATERIAL

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

We are transmitting the following documents along with this Transmittal Sheet (which is submitted in triplicate):

- ☒ An itemized return postcard.
☐ A Petition for Extension of Time for ___ month(s) and a check in the amount of \$___ for the required fee.
☐ An Information Disclosure Statement (___ pgs); copies of ___ applications; 1449 forms (___ pgs); and copies of ___ documents cited on the 1449 forms.
☒ Please charge Deposit Account No. 13-4895 in the amount of \$330.00, for filing a brief in support of an appeal.
☐ A certified copy of a ___ application, Serial No. __, filed ____, the right of priority of which is claimed under 35 U.S.C. §119.
☒ Other: Appellants' Brief on Appeal (11 pgs) (in triplicate); Appendix I (7 pgs) (in triplicate); Appendix II (22 pgs) (in triplicate); and Appendix III (24 pgs) (in triplicate).
Amendment ___ No Additional fee is required. ___ The fee has been calculated as shown:

Fee Calculation for Claims Pending After Amendment					
	Pending Claims after Amendment (1)	Claims Paid for Earlier (2)	Number of Additional Claims (1-2)	Cost per Additional Claim	Additional Fees Required
Total Claims				x \$18 =	
Independent Claims				x \$86 =	
One or More New Multiple Dependent Claims Presented? If Yes, Add \$290 Here →					
Total Additional Claim Fees Required					

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MUETING, RAASCH & GEBHARDT, P.A.

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By: Rachel Gagliardi Guban
Name: Rachel Gagliardi-Guban

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PATENT
Docket No. 56654US002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant(s):	EUGENE G. JOSEPH et al.)	Group Art Unit:	1774
)		
Serial No.:	09/847,942)	Examiner:	Camie S. Thompson
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)		
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For:	PRESSURE SENSITIVE ADHESIVE FIBERS WITH A REINFORCING MATERIAL			

APPELLANTS' BRIEF ON APPEAL

Commissioner for Patents
Mail Stop Appeal Brief - Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Brief is presented in support of the Appeal filed 21 May 2004, from the final rejection of claims 1-20, 22-25, and 40-49 of the above-identified application under 37 C.F.R. §§ 1.113 and 1.191.

This Brief is being submitted in triplicate, as set forth in 37 C.F.R. § 1.192(a). Please charge Deposit Account No. 13-4895 the fee for filing this Brief under 37 C.F.R. § 1.17(c).

I. REAL PARTY IN INTEREST

The real party in interest of the above-identified patent application is the assignee, 3M Innovative Properties Company.

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II. RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences known to Appellants' Representatives which would directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-20, 22-25 and 40-49 are pending and are the subject of this Appeal (see Appendix I).

IV. STATUS OF AMENDMENTS

A non-final Office Action was mailed on 8 August 2002. Claims 1-20, 22-25, and 40-49 were rejected under 35 U.S.C. § 112, second paragraph. Claims 1-20, 22-25, 40-45, and 47-49 were rejected under 35 U.S.C. § 102(e) as being anticipated by Riedel et al. (U.S. Patent No. 6,133,173). Claims 1 and 46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hicks, Jr. (U.S. Patent No. 4,659,923) in view of Riedel et al. (U.S. Patent No. 6,133,173). The Examiner also issued a Restriction Requirement, which was verbally elected by Applicants' Representatives on 17 July 2002.

An Amendment and Response was filed by Appellants (dated 9 December 2002) in the above-identified application in response to the non-final Office Action dated 8 August 2002. Appellants respectfully withdrew their earlier election and traversed the restriction of the pending claims.

A final Office Action was mailed on 17 March 2003. The Restriction Requirement was made final. The 35 U.S.C. § 112, second paragraph rejection of claims 1-20, 22-25, and 40-49 was withdrawn. Also, the 35 U.S.C. § 102(e) rejection of claims 1-20, 22-25, 40-45, and 47-49 as being anticipated by Riedel et al. (U.S. Patent No. 6,133,173) was

withdrawn. The 35 U.S.C. § 103(a) rejection of claims 1 and 46 from the non-final Office Action of 8 August 2002 was maintained. Also, claims 1-20, 22-25, and 40-49 were newly rejected under 35 U.S.C. § 103(a) as being unpatentable over Riedel et al. (U.S. Patent No. 6,133,173).

A Notice of Appeal was filed by Appellants (dated 17 June 2003) in the above-identified application in response to the final Office Action dated 17 March 2003.

A Request for Continued Examination was filed by Appellants (dated 18 August 2003) in the above-identified application in response to the final Office Action dated 17 March 2003 and the Notice of Appeal dated 17 June 2003. Appellants also filed an Amendment and Response with the Request for Continued Examination.

A non-final Office Action was mailed on 30 October 2003. Claims 1-20, 22-25, 40-45, and 47-49 were newly rejected under 35 U.S.C. § 102(e) as being anticipated by Riedel et al. (U.S. Patent No. 6,133,173). The 35 U.S.C. § 103(a) rejection of claims 1 and 46 from the non-final Office Action of 8 August 2002 was maintained.

An Amendment and Response was filed by Appellants (dated 27 January 2004) in the above-identified application in response to the non-final Office Action dated 30 October 2003.

A final Office Action was mailed on 22 March 2004. The 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a) rejections from the non-final Office Action mailed on 30 October 2003 were maintained.

A Notice of Appeal was filed by Appellants (dated 21 May 2004) in the above-identified application in response to the final Office Action dated 22 March 2004.

All amendments were entered for the purposes of this Appeal.

V. SUMMARY OF THE INVENTION

Appellants' invention is directed toward an adhesive nonwoven web comprising pressure sensitive adhesive fibers comprising a pressure sensitive adhesive component and a reinforcing material comprising a plurality of substantially continuous minimicrofibers having a diameter of no greater than about 10 microns within the pressure sensitive adhesive component. There are substantially continuous minimicrofibers of reinforcing material within each fiber. The pressure sensitive adhesive fibers comprise about 60 weight percent to about 95 weight percent of the pressure sensitive adhesive component and about 5 weight percent to about 40 weight percent of the reinforcing material based on a total weight of the pressure sensitive adhesive fibers, and further wherein a nonwoven web comprising the pressure sensitive adhesive fibers and having a basis weight of about 55 g/m² has a maximum load of at least about 30 g/cm, which is at least about 150% of the load at yield point, and an elongation at break of at least about 50%. Substantially continuous means that for an at least 0.5 centimeter length sample of the adhesive fiber, at least 50% of the minimicrofibers present in the sample are continuous (i.e., they have the same length of the sample) (page 6, lines 25-27). The invention is also directed to articles that include such an adhesive nonwoven web.

Appellants have discovered that the adhesive fiber of the invention allows for improved cohesive strength over the pressure sensitive adhesive component alone, yet the tack of the pressure sensitive adhesive remains substantially unreduced (page 3, lines 25-28). The reinforcing material also exhibits enhanced stretch removable characteristics (page 7, lines 29-31). These characteristics impart a low amount of trauma, damage, pain, or irritation during use and/or removal to underlying skin or other delicate surfaces to which the web adheres (page 8, lines 3-6).

VI. ISSUE(S) PRESENTED FOR REVIEW

1. Whether claims 1-20, 22-25, 40-45, and 47-49 are patentable under 35 U.S.C. § 102(e) over Riedel et al. (U.S. Patent No. 6,133,173).

2. Whether claims 1 and 46 are patentable under 35 U.S.C. § 103(a) over Hicks, Jr. (U.S. Patent No. 4,659,923) in view of Riedel et al. (U.S. Patent No. 6,133,173).

VII. GROUPING OF CLAIMS

For the purpose of this appeal, claims 1-20, 22-25, and 40-49 stand or fall together.

As applicable, separate arguments of patentability are provided to support the grouping of the claims as presented above.

VIII. ARGUMENT

A. Claims 1-20, 22-25, 40-45, and 47-49 are not anticipated under 35 U.S.C. § 102(e) by Riedel et al. (U.S. Patent No. 6,133,173) (Riedel).

“Anticipation under 35 U.S.C. § 102 requires the disclosure in a single piece of prior art of each and every limitation of a claimed invention.” Apple Computer, Inc. v. Articulate Systems, Inc., 57 U.S.P.Q.2d 1057, 1061 (Fed. Cir. 2000) (citations omitted).

Riedel does not disclose every limitation of the claimed invention. Riedel discloses a dispensable nonwoven cohesive wrap that includes mutually entangled fibers at least some of which are pressure-sensitive adhesive fibers (column 2, lines 20-24). The adhesive fibers are described as being “50 microns or less in diameter ... and preferably are greater than 10 microns in diameter” (column 2, lines 55-58). The nonwoven wrap is formed from coherent fibers including at least in part pressure-sensitive adhesive fibers which are intimately entangled each with the other in the form of a coherent breathable nonwoven web (column 2, lines 37-40).

The wrap is preferably a single layer material without a separate adhesive coating or release coating where the adhesive fibers extend through the entire depth dimension of the wrap, such that a portion of the adhesive fibers are on both faces of the wrap, and preferably are uniformly distributed across the length and width dimensions of the wrap (column 2, lines 26-33).

Furthermore, Riedel discloses that the cohesive wrap preferably also comprises non-pressure-sensitive adhesive fibrous material intimately commingled with the pressure-sensitive adhesive fibers (column 2, lines 60-64).

“The commingled pressure-sensitive adhesive fibers or microfibers and non-pressure-sensitive adhesive fibrous material can be present in separate individual fibers or the pressure-sensitive adhesive fibers or microfibers and the non-pressure-sensitive material can form distinct regions in a conjugate fiber and/or be part of a blend. For example, conjugate fibers can be in the form of two or more layered fibers, sheath-core fiber arrangements or in “island in the sea” type fiber structures. In this case, one component layer would comprise the pressure-sensitive adhesive fiber or microfiber and a second component layer would comprise the non-pressure-sensitive adhesive fibrous material. Preferably, the individual components of the multicomponent conjugate fibers will be present substantially continuously along the fiber length in discrete zones, which zones preferably extend along the entire length of the fibers.” (column 2, line to column 3, line 16).

Riedel fails to teach an adhesive nonwoven web comprising pressure sensitive adhesive fibers comprising a pressure sensitive adhesive component and a reinforcing material comprising a plurality of substantially continuous minimicrofibers having a diameter of no greater than about 10 microns within the pressure sensitive adhesive component, wherein the pressure sensitive adhesive fibers comprise about 60 weight percent to about 95 weight percent of the pressure sensitive adhesive component and about 5 weight percent to about 40 weight percent of the reinforcing material based on a total weight of the pressure sensitive adhesive fibers, and further wherein a nonwoven web comprising the pressure sensitive adhesive fibers

and having a basis weight of about 55 g/m² has a maximum load of at least about 30 g/cm, which is at least about 150% of the load at yield point, and an elongation at break of at least about 50%. Riedel also fails to teach an article comprising such a nonwoven web.

In contrast to the claimed invention, Riedel teaches a cohesive wrap in which the commingled pressure-sensitive adhesive fibers or microfibers and non-pressure-sensitive adhesive fibrous material can be present in separate individual fibers or the pressure-sensitive adhesive fibers or microfibers and the non-pressure-sensitive material can form distinct regions in a conjugate fiber and/or be part of a blend. For example, the conjugate fibers can be in the form of two or more layered fibers, sheath-core fiber arrangements or in “island in the sea” type fiber structures. Appellants submit that those of skill in the art would understand Riedel to teach that conjugate fibers can include discrete zones like islands in the sea and that such fibers can be substantially continuous. This is in contrast to the substantially continuous minimicrofibers of the fibers of the claimed nonwoven web. Thus, although Riedel discusses conjugate fibers, there is no teaching of fibers that include substantially continuous minimicrofibers of reinforcing material within each fiber.

There is also no teaching in Riedel that a pressure sensitive adhesive fiber comprises both about 60 weight percent to about 95 weight percent of the pressure sensitive adhesive component and about 5 weight percent to about 40 weight percent of the reinforcing material, as recited in the pending claims. In contrast, Riedel teaches that the “non-pressure-sensitive adhesive material in fibrous form generally comprises 5 to 95 percent of the basis weight of the fibers in the nonwoven cohesive web, preferably 10 to 90 percent. The non-pressure-sensitive material if present solely in the form of a blend with the pressure-sensitive adhesive material is preferably from 20 to 80 percent of the basis weight of the fibers forming the cohesive wrap” (column 9, lines 26-33). Thus, Riedel does not provide specific teaching of the combination of components in the nonwoven web of the pending claims.

Riedel also fails to teach an adhesive nonwoven web that includes the fibers of the present claims. In contrast, Riedel recites a nonwoven cohesive wrap that is “formed into a roll form without the use of release liners or release coatings yet still results in a roll of coherent material such that can be easily dispensed without blocking, tearing or cohesive failure (e.g., splitting of the fibrous web or wrap) of the wrap” (column 10, lines 32-37). This leads to a nonwoven cohesive wrap that “is coherent such that it can be dispensed, wound on itself and unwound or removed without the wrap tearing, splitting, or the like” (column 10, lines 59-61).

Appellants submit that one of skill in the art recognizes the difference between adhesive and cohesive materials. An adhesive material will adhere to a variety of dissimilar surfaces, whereas a cohesive article will typically only stick to itself. Thus, one of skill in the art would understand that, as indicated by Riedel, cohesive wraps are those that stick to themselves rather than to other materials. Accordingly, Riedel fails to teach an adhesive nonwoven web of the present claims.

Accordingly, Appellants submit that Riedel fails to teach Appellants' definition of minimicrofibers and fails to teach all the limitations recited in the pending claims.

B. Claims 1 and 46 are not obvious under 35 U.S.C. § 103(a) over Hicks, Jr. (U.S. Patent No. 4,129,673) (Hicks) in view of Riedel et al. (6,133,173) (Riedel).

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. In re Fine, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). To establish a *prima facie* case of obviousness, three criteria must be met. First, the prior art reference (or references) must teach or suggest all of the claim limitations. Second, there must be some suggestion or motivation, either in the cited reference (or references), or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Third, there must be a reasonable expectation of success. M.P.E.P. § 2142

(citations omitted). Furthermore, "in order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention was concerned." M.P.E.P. § 2141.01(a) (citations omitted).

Hicks teaches a sensor or transducer having a dual path optical fiber, such as a single mode, two polarization state, waveguide fiber, that utilizes the relative change in propagation constant of light to sense and transduce a force applied to the fiber to an electrical signal (abstract; column 3, line 66 to column 4, line 14). A conventional single mode fiber is described as having a glass core and glass cladding of fused silica with a slightly different index of refraction (column 3, lines 41-46). The optical sensor may be used to measure pressure. This is done by configuring the fiber of the sensor such that force is applied to the fiber in response to pressure (column 7, line 39 to column 8, line 65).

Appellants submit that the Examiner has failed to factually support a *prima facie* conclusion of obviousness. First, the cited references, alone or in combination, do not teach or suggest all of the claim limitations. The Examiner admits that Hicks does not disclose the components of the pressure sensitive adhesive fibers as per instant claim 1 (page 4 of Final Office Action mailed 22 March 2004). The failings of Hicks are not corrected by the teachings of Riedel for the reasons described above. For example, the combination of Hicks and Riedel does not teach or suggest an adhesive nonwoven web comprising pressure sensitive adhesive fibers comprising a pressure sensitive adhesive component and a reinforcing material comprising a plurality of substantially continuous minimicrofibers having a diameter of no greater than about 10 microns within the pressure sensitive adhesive component, wherein the pressure sensitive adhesive fibers comprise about 60 weight percent to about 95 weight percent of the pressure sensitive adhesive component and about 5 weight percent to about 40 weight percent of the reinforcing material based on a total weight of the pressure sensitive adhesive fibers, and further

wherein a nonwoven web comprising the pressure sensitive adhesive fibers and having a basis weight of about 55 g/m² has a maximum load of at least about 30 g/cm, which is at least about 150% of the load at yield point, and an elongation at break of at least about 50%. The combination of Hicks with Riedel also fails to teach an article that includes such an adhesive nonwoven web.

Accordingly, the cited references, alone or in combination, do not teach or suggest all of the claim limitations. Second, Appellants submit that there is no suggestion or motivation to combine the optical fiber of Hicks, described as having a glass core and glass cladding, with the nonwoven cohesive wrap of Riedel. Third, Appellants submit that the combination of Hicks with Riedel would fail as the fibers of Riedel are not optical fibers and the optical fibers of Hicks are not adhesive. Accordingly, Appellants submit that the Examiner has failed to satisfy the initial burden of factually supporting a *prima facie* conclusion of obviousness.

In addition, Appellants submit that Hicks is neither in the field of applicant's endeavor or reasonably pertinent to the particular problem with which the invention was concerned. The present claims are directed to an adhesive nonwoven web while Hicks is directed to an optical sensor or transducer. Accordingly, Applicants submit that Hicks is unavailable as a citable reference against the present invention because Hicks is nonanalogous art. M.P.E.P. § 2141.01(a).

Appellants' Brief on Appeal

Serial No.: 09/847,942

Confirmation No.: 6169

Filed: 2 May 2001

For: PRESSURE SENSITIVE ADHESIVE FIBERS WITH A REINFORCING MATERIAL

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C. Summary

For the foregoing reasons, Appellants respectfully request that the Board review and reverse the rejections of claims 1-20, 22-25, and 40-49 as discussed herein and that notification of the allowance of these claims be issued.

Respectfully submitted,

Eugene G. JOSEPH et al.,

By

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APPENDIX I.

Serial No.: 09/847,942

Docket No.: 56654US002

Claims 1-20, 22-25, and 40-49 are provided below.

1. An adhesive nonwoven web comprising pressure sensitive adhesive fibers comprising:
a pressure sensitive adhesive component; and
an organic polymeric reinforcing material comprising a plurality of substantially continuous minimicrofibers having a diameter of no greater than about 10 microns within the pressure sensitive adhesive component;
wherein the pressure sensitive adhesive fibers comprise about 60 weight percent to about 95 weight percent of the pressure sensitive adhesive component and about 5 weight percent to about 40 weight percent of minimicrofibrous organic polymeric reinforcing material based on a total weight of the pressure sensitive adhesive fibers, and further wherein a nonwoven web comprising the pressure sensitive adhesive fibers and having a basis weight of about 55 g/m² has a maximum load of at least about 30 g/cm, which is at least about 150% of the load at yield point, and an elongation at break of at least about 50%.
2. The nonwoven web of claim 1 wherein the minimicrofibrous organic polymeric reinforcing material comprises substantially continuous in-situ formed minimicrofibers.
3. The nonwoven web of claim 1 which has an elongation at break of at least about 200% at a basis weight of about 55 g/m².
4. The nonwoven web of claim 1 which has a maximum load of at least about 50 g/cm at a basis weight of about 55 g/m².

5. The nonwoven web of claim 1 which has a load at yield point of no greater than about 100 g/cm at a basis weight of about 55 g/m².
6. The nonwoven web of claim 1 comprising about 60 weight percent to about 95 weight percent of the pressure sensitive adhesive component and about 5 weight percent to about 40 weight percent of minimicrofibrous organic polymeric reinforcing material.
7. The nonwoven web of claim 1 wherein the minimicrofibers have a diameter of no greater than about 5 micrometers.
8. The nonwoven web of claim 1 wherein the minimicrofibers have an aspect ratio of greater than about 1000.
9. The nonwoven web of claim 1 wherein the pressure sensitive adhesive component comprises synthetic rubber, styrene block copolymer, polyvinyl ether, poly(meth)acrylate, polyolefin, silicone, or combinations thereof.
10. The nonwoven web of claim 1 wherein the pressure sensitive adhesive component comprises a crosslinked acrylate copolymer, wherein the crosslinked acrylate copolymer comprises copolymerized monomers comprising at least one monoethylenically unsaturated alkyl (meth)acrylate monomer, at least one monoethylenically unsaturated free-radically copolymerizable reinforcing monomer having a homopolymer glass transition temperature higher than that of the alkyl (meth)acrylate monomer.

11. The nonwoven web of claim 10 wherein the crosslinked acrylate copolymer is derived from a melt-processable acrylate copolymer and a crosslinking agent, wherein the crosslinking agent crosslinks subsequent to fiber formation or is a thermally reversible crosslinking agent.

12. The nonwoven web of claim 11 wherein the crosslinking agent is a styrene macromer.

13. The nonwoven web of claim 10 wherein the alkyl (meth)acrylate monomer when homopolymerized has a glass transition temperature of no greater than about 0°C, and wherein the free-radically copolymerizable reinforcing monomer when homopolymerized has a glass transition temperature of at least about 10°C.

14. (Currently Amended) The nonwoven web of claim 10 wherein the pressure sensitive adhesive component comprises a polymer derived from at least one alkyl (meth)acrylate ester monomer; the group consisting of selected from isooctyl acrylate, 2-ethyl-hexyl acrylate, and n-butyl acrylate, and at least one monomer selected from the group consisting of acrylic acid and acrylamide.

15. The nonwoven web of claim 1 wherein the minimicrofibrous organic polymeric reinforcing material comprises an elastomer having a yield strength of no greater than about 20 MPa and a tensile strength of at least about 150% of the yield strength.

16. The nonwoven web of claim 1 wherein the minimicrofibrous organic polymeric reinforcing material comprises a semi-crystalline polymer.

17. An adhesive nonwoven web comprising pressure sensitive adhesive fibers comprising:

a pressure sensitive adhesive component; and

a reinforcing material comprising a metallocene-catalyzed polyolefin within the pressure sensitive adhesive component;

wherein the reinforcing material comprises a plurality of substantially continuous minimicrofibers having a diameter of no greater than about 10 microns;

wherein the pressure sensitive adhesive fibers comprise about 60 weight percent to about 95 weight percent of the pressure sensitive adhesive component and about 5 weight percent to about 40 weight percent of the reinforcing material based on a total weight of the pressure sensitive adhesive fibers, and further wherein a nonwoven web comprising the pressure sensitive adhesive fibers and having a basis weight of about 55 g/m² has a maximum load of at least about 30 g/cm, which is at least about 150% of the load at yield point, and an elongation at break of at least about 50%.

18. The nonwoven web of claim 17 wherein the reinforcing material has a melting point above the use temperature of the fiber.

19. An adhesive nonwoven web comprising pressure sensitive adhesive fibers comprising:
a pressure sensitive adhesive component comprising a crosslinked acrylate copolymer, wherein the crosslinked acrylate copolymer comprises copolymerized monomers comprising at least one monoethylenically unsaturated alkyl (meth)acrylate monomer, at least one monoethylenically unsaturated free-radically copolymerizable reinforcing monomer having a homopolymer glass transition temperature higher than that of the alkyl (meth)acrylate monomer; and

a reinforcing material comprising a metallocene-catalyzed polyolefin within the pressure sensitive adhesive component;

wherein the reinforcing material comprises a plurality of substantially continuous minimicrofibers having a diameter of no greater than about 10 microns;

wherein the pressure sensitive adhesive fibers comprise about 60 weight percent to about 95 weight percent of the pressure sensitive adhesive component and about 5 weight percent to about 40 weight percent of the reinforcing material based on a total weight of the pressure sensitive adhesive fibers, and further wherein a nonwoven web comprising the pressure sensitive adhesive fibers and having a basis weight of about 55 g/m^2 has a maximum load of at least about 30 g/cm, which is at least about 150% of the load at yield point, and an elongation at break of at least about 50%.

20. An adhesive nonwoven web comprising pressure sensitive adhesive fibers comprising:

a pressure sensitive adhesive component; and

an organic polymeric reinforcing material within the pressure sensitive adhesive component, wherein the organic polymeric reinforcing material has a yield strength of no greater than about 20 MPa and an elongation at break of at least about 50%;

wherein the reinforcing material comprises a plurality of substantially continuous minimicrofibers having a diameter of no greater than about 10 microns;

wherein the pressure sensitive adhesive fibers comprise about 60 weight percent to about 95 weight percent of the pressure sensitive adhesive component and about 5 weight percent to about 40 weight percent of the organic polymeric reinforcing material based on a total weight of the pressure sensitive adhesive fibers, and further wherein a nonwoven web comprising the pressure sensitive adhesive fibers and having a basis weight of about 55 g/m^2 has a maximum load of at least about 30 g/cm, which is at least about 150% of the load at yield point, and an elongation at break of at least about 50%.

22. An article comprising a surface having the adhesive nonwoven web of claim 1 disposed thereon.

23. An article comprising a surface having the adhesive nonwoven web of claim 17 disposed thereon.

24. An article comprising a surface having the adhesive nonwoven web of claim 19 disposed thereon.

25. An article comprising a surface having the adhesive nonwoven web of claim 20 disposed thereon.

40. A stretch removable article comprising the adhesive nonwoven web of claim 1.

41. A stretch removable article comprising the adhesive nonwoven web of claim 17.

42. A stretch removable article comprising the adhesive nonwoven web of claim 19.

43. A stretch removable article comprising the adhesive nonwoven web of claim 20.

44. A medical article comprising the adhesive nonwoven web of claim 1.

45. The medical article of claim 44 which is in the form of a wound dressing, surgical dressing, medical tape, athletic tape, or surgical tape.

46. The medical article of claim 44 which is in the form of a sensor, an electrode, or an ostomy appliance.

47. A medical article comprising the adhesive nonwoven web of claim 17.

48. A medical article comprising the adhesive nonwoven web of claim 19.

49. A medical article comprising the adhesive nonwoven web of claim 20.

FULL TEXT OF CASES (USPQ2D)

All Other Cases

Apple Computer Inc. v. Articulate Systems Inc., 57 USPQ2d 1057 (CA FC 2000)

Apple Computer Inc. v. Articulate Systems Inc., 57 USPQ2d 1057 (CA FC 2000)

57 USPQ2D 1057

Apple Computer Inc. v. Articulate Systems Inc.

U.S. Court of Appeals Federal Circuit

Nos. 99-1165, -1198

Decided December 7, 2000

Headnotes

PATENTS

[1] Patent construction — Claims — Defining terms (§125.1305)

Term “window,” as used in asserted claims of patent for method and apparatus for generating multiple active windows in computer's graphical user interface, does not exclude menus or palettes of prior art graphics program, since, according to patent's written description, simple icon that performs button function would qualify as “window,” and palette of prior art program, incorporating number of function keys within defined area, therefore qualifies as “window” as well, and since menu bars or buttons are commonly understood to be types of windows by those skilled in art.

[2] Patent construction — Claims — Broad or narrow (§125.1303)

Asserted claims of patent for method and apparatus for generating multiple active windows in computer's graphical user interface, which require windows containing “data” that user may operate on, are not limited to data in form of text, and thus do not exclude windows containing mere functions or commands, since recitation of “data” in claimed windows appears in preambles of independent claims, but this recitation does not give meaning to these claims or serve to define invention, since, even if it is assumed that recitation of “data” acts as claim limitation, patent's written description uses that term to include both text and command features, and since preferred embodiment further suggests that narrow interpretation of “data” cannot be correct.

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[3] Patent construction — Claims — Broad or narrow (§125.1303)**Patent construction — Claims — Defining terms (§125.1305)**

Term “simultaneously active windows,” as used in asserted claims of patent for apparatus and method for generating multiple active windows in computer's graphical user interface, is properly construed to claim multiple windows that are available for operation, or “active,” without need for preliminary mouse click, since specification distinguishes invention of patent from prior art systems which required initial mouse click to activate window before operation on that window was possible; this interpretation preserves separate limitation that two windows be active and “operable on” without changing ordering of windows, since this limitation concerns effect of user operating on window, not fact that it may be operated on.

[4] Patent construction — Patent office proceedings (§125.05)**Patent construction — Claims — Broad or narrow (§125.1303)**

Proper construction of claims at issue is not negated by fact that such construction causes claims to read on prior art that was before examiner during prosecution, since features of prior art that anticipate claims were not evident from materials submitted during prosecution, and were not otherwise brought to examiner's attention, and since axiom that claims should be read in way that avoids ensnaring prior art does not apply if sole claim construction that is consistent with claims' language and written description renders claim invalid.

[5] Patent construction — Claims — In general (§125.1301)

Federal district court, having found certain independent claims of patent in suit anticipated by prior art, erred by concluding that dependent claims were similarly anticipated without considering dependent claims individually, since dependent claim must be presumed valid even if it is dependent on invalid claim.

[6] Patent construction — In general (§125.01)**Patent construction — Claims — Broad or narrow (§125.1303)**

Term “help access window” in claims of patent for method and apparatus for generating multiple active windows in computer's graphical user interface cannot be so broadly construed as to read “help” limitation out of claim, since claim must be viewed as whole, and must be interpreted in light of teachings of written description and purpose of invention described therein, and since doing so in present case reveals that claimed window is intended to access help information from help system or database.

Particular Patents**Particular patents — Electrical — Computers**

5,469,540, Powers, Palmer, Coleman, Herman, and Cochran, method and apparatus for generating and

displaying multiple simultaneously-active windows, summary judgment of invalidity affirmed in part and vacated in part.

Case History and Disposition

Appeal from the U.S. District Court for the Northern District of California, Ware, J.

Action by Apple Computer Inc. against Articulate Systems Inc. and Dragon Systems Inc. for patent infringement. Plaintiff appeals from summary judgment of patent invalidity, and defendant Articulate Systems Inc. cross-appeals from denial of its motion for attorneys' fees. Affirmed in part, reversed in part, vacated in part, and remanded.

Related decisions: 44 USPQ2d 1369; 43 USPQ2d 1843.

Attorneys:

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Judge:

Before Newman, circuit judge, Archer, senior circuit judge, and Clevenger, circuit judge.

Opinion Text

Opinion By:

Archer, S.J.

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DECISION

Apple Computer, Inc. ("Apple") appeals the summary judgment of the United States District Court for the Northern District of California, invalidating U.S. Patent No. 5,469,540 ("the '540 patent"), issued November 21, 1995 and assigned to Apple. 1 Articulate Systems, Inc. ("Articulate") cross-appeals the district court's denial of its motion for attorneys' fees. We affirm-in-part, reverse-in-part, vacate-in-part, and remand the case for further proceedings consistent with this opinion.

BACKGROUND

The technology behind this appeal concerns the generation of multiple active windows in a graphical user interface. Apple owns several patents that cover this type of technology, including the '540 patent. The '540 patent, generally speaking, claims a method of displaying data on a computer screen in multiple windows that are simultaneously active. In this claimed system, the user may manipulate or operate on two or more displayed windows without having to toggle between active windows, and without changing the display order of the windows – a primary window "floats" over one or more secondary windows. Articulate developed a computer dictation software system known as PowerSecretary. When PowerSecretary is running on a computer, a "Voicebar" floats on top of other windows to allow the user to access certain features of the software.

Apple originally brought suit against Articulate Systems alleging that Articulate's PowerSecretary product infringed four of Apple's patents, including the '540 patent. There are two versions of the PowerSecretary product—one for Microsoft Windows operating systems and one for MacIntosh operating systems. Apple alleged that both versions of the software infringed its patents. When Dragon Systems acquired PowerSecretary for Windows, Apple added Dragon Systems as a defendant.

Through a series of summary judgment motions by Articulate, this lawsuit was eventually narrowed to allegations of infringement of a single patent, the '540 patent, by a single product, the Windows version of PowerSecretary. First, the MacIntosh version of PowerSecretary was dropped from the suit because the court found that Apple had licensed Articulate to make, use, sell, copy, and otherwise distribute the MacIntosh version of PowerSecretary. Then the court found, based on Apple's admissions, that the Windows version of PowerSecretary did not infringe two of the four asserted patents. Finally, the court found that the Windows version of PowerSecretary did not infringe another of Apple's patents because Articulate could only be accused of inducement or contributory infringement and Apple could not provide proof of the requisite direct infringement.

With respect to the '540 patent, the only remaining patent in the lawsuit, Apple alleged infringement of claims 1, 2, 15-18, and 23-26. Claims 1 and 23 are independent claims and claims 2 and 15-18 and claims 24-26 are dependent claims depending from claims 1 and 23, respectively. Claim 1 claims a method of displaying simultaneously active windows and reads as follows:

1. In a computer display system having a central processing unit (CPU) coupled to a display such that data is displayed on said display in a plurality of windows, a method for displaying said windows and operating upon said windows and said data in said windows by a user, comprising the steps of:

generating and displaying each of said plurality of windows at a different window layer according to a window order, wherein a window at a higher window layer covers a window at a lower window layer to the extent that any of said windows overlap, wherein said step of generating and displaying each of said plurality of windows comprises the steps of

generating and displaying a first window at a first window layer, wherein said first window layer is a highest window layer;

generating and displaying a second window at a second window layer, wherein said first window has a portion that does not overlap with said second window;

both of said windows being simultaneously active; and said user operating on both said first window and said second window without altering the window order of said plurality of windows.

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Claim 23 is substantially similar to claim 1, claiming a computer display system capable of displaying simultaneously active windows. Claims 2 and 15 are dependent on claims 1 and 2, respectively, and further specify that the first window comprises a "help access window." Claim 16 is dependent on claim 1 and further specifies that "said CPU generates said first windows in response to execution of a first application and generates said second window in response to execution of a second application." The remaining asserted claims, 17, 18, and 24-26, are dependent on claims 1 and 23 and differ only slightly from these independent claims.

Having eliminated 3 of the 4 patents from the lawsuit, Articulate moved for summary judgment of invalidity of the '540 patent. Specifically, Articulate asserted that claims 1, 2, 15, 17, 18, and 23-26 of

the '540 patent were anticipated by prior art Adobe Photoshop software. Articulate further alleged that claim 16, the only other claim asserted by Apple, was also invalid as obvious over Adobe Photoshop in conjunction with a certain MacTutor publication.

Adobe Photoshop is a graphics software package that allows a user to create drawings on a drawing window on a computer screen. Adobe Photoshop also has a tool palette that is displayed next to the drawing window, or may be positioned to overlap the drawing window. The palette is a menu of drawing commands or tools that can be selected by clicking on the icon in the palette for that function. A user may successively manipulate or click on the drawing window and the palette without changing the displayed ordering of these items. The palette will continue to float on top of the drawing window.

Articulate argued that the drawing window and tool palette “window” of Adobe Photoshop were simultaneously active windows as claimed in the '540 patent. According to Articulate, these features of Adobe Photoshop anticipated claims 1, 2, 15, 17, 18, and 23-26 of the '540 patent and rendered them invalid.

The MacTutor article (Don Melton and Mike Ritter, *C Workshop, Tear-off Menus and Floating Palettes*, MacTutor, April 1988, at 26) describes “tear-off” menus 2 and floating palettes in graphical display systems. Articulate argued that the MacTutor article further disclosed that simultaneously active windows could be generated by separate applications. According to Articulate, this publication, together with Adobe Photoshop, rendered claim 16 of the '540 patent invalid for obviousness.

To assist in deciding Articulate's summary judgment motion, the court held a claim interpretation hearing pursuant to *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 34 USPQ2d 1321 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 [38 USPQ2d 1461] (1996). Following that hearing, the court issued its first order, construing the following claim terms at issue:

window - a framing device on the computer screen that displays information and may set the displayed information apart from other information on the screen;

operate on a window - opening, closing, moving or resizing a window without manipulating the data contained within such window;

operate on data in a window - manipulating the data contained within a window without necessarily opening, closing, moving or resizing the window;

help access window - a window that contains one or more controls for accessing information which has been loaded on the central processing unit (“CPU”).

The court subsequently issued a second order, granting Articulate's motion for summary judgment, finding that claims 1, 2, 15-18 and 23-26 of the '540 patent are invalid.

In making its findings of invalidity in its second order, the court further construed additional claim terms as follows:

simultaneously active windows - two or more defined and separated areas on the computer screen which are open at the same time and may be operated on by the user;

active - simultaneously available for operation.

In finding the '540 patent invalid, the district court compared the claims with the prior art. The district court referenced the declaration of Articulate's expert and concluded, without any further elaboration, that the computer program known as Adobe Photoshop “disclosed each and every limitation contained

in independent claims 1 and 23.” It also found that “[e]ach of the remaining claims of the '540 patent depend[s] on claims 1 and 23,

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so they are also anticipated by Adobe Photoshop.”

The court further noted that claims 2 and 15, also dependent on claims 1 and 2, respectively, differ from the remaining claims by defining the first window as a “help access window.” Apple defined this term during prosecution as “a window that contains one or more user interface controls for accessing information related to software that is loaded on said CPU.” The court concluded that the prior art met these claim limitations.

Apparently addressing the only remaining asserted claim, claim 16, the court concluded that the '540 patent was anticipated or rendered obvious by the Photoshop software. Having found all claims at issue invalid, the district court entered final judgment in favor of Articulate. Apple now appeals this judgment.

Following the court's ruling in its favor on summary judgment, Articulate moved to have the case declared an exceptional case and further moved for an award of attorneys' fees. The court found, however, that Articulate had not provided clear and convincing evidence that this was an exceptional case. Specifically, the court found that Articulate had failed to prove that Apple's infringement suit was purely retaliatory and, therefore, in bad faith. The court further found that Apple's pretrial investigation was sufficient. Finally, the court noted that even though much of Apple's suit was summarily dismissed, that did not automatically mean that Articulate was entitled to attorneys' fees. Articulate cross-appeals this denial of their request for attorneys' fees.

DISCUSSION

I

Summary judgment may be entered when there is no genuine issue as to any material fact and the movant is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). “Only disputes over facts that might affect the outcome of the suit under the governing law will properly preclude summary judgment.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). For a dispute over a material fact to be “genuine” the evidence must be “such that a reasonable jury could return a verdict for the non-moving party.” *Id.*

The burden is upon the movant to establish the absence of genuine issues of material fact and entitlement to judgment as a matter of law. Fed. R. Civ. P. 56(c); *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1022, 226 USPQ 881, 884 (Fed. Cir. 1985). Once the movant has established a prima facie case for summary judgment, the nonmovant must come forward with evidence demonstrating a genuine issue as to a material fact. *Id.* “The evidence of the non-movant is to be believed, and all justifiable inferences are to be drawn in his favor.” *Anderson*, 477 U.S. at 255.

“In rendering a decision on a motion for summary judgment, a court must `view the evidence' presented through the prism of the substantive evidentiary burden that would inhere at trial.” *Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 880, 45 USPQ2d 1977, 1981 (Fed. Cir. 1998) (quoting *Anderson*, 477 U.S. at 254). Summary judgment of invalidity, therefore, must be predicated on facts established by clear and convincing evidence. *Rockwell Int'l Corp. v. United States*, 147 F.3d 1358, 1362, 47 USPQ2d 1027, 1029 (Fed. Cir. 1998).

We review the district court's grant of summary judgment *de novo*. *Id.*

II

The district court found each of the asserted claims anticipated and, therefore, invalid. ³ Anticipation under 35 U.S.C. § 102 requires the disclosure in a single piece of prior art of each and every limitation of a claimed invention. *Electro Med. Sys. S.A. v. Cooper Life Scis.*, 34 F.3d 1048, 1052, 32 USPQ2d 1017, 1019(Fed. Cir. 1994). Whether such art is anticipating is a question of fact. *Scripps Clinic & Research Found. v. Genentech, Inc.*, 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991).

On appeal, Apple does not contest the district court's factual findings with respect to its ultimate finding of anticipation. Indeed, the parties appear to be in agreement on the content and characterization of the prior art. ⁴ Rather, Apple challenges the legal analysis

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and the underlying claim interpretation of the court that led it to conclude that the asserted claims of the '540 patent were invalid. Claim construction is a question of law, which we review *de novo*. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454, 46 USPQ2d 1169, 1173(Fed. Cir. 1998) (*en banc*). In conducting this *de novo* review, however, “we begin with and carefully consider the trial court's work.” *Key Pharm. v. Hercon Labs. Corp.*, 161 F.3d 709, 713, 48 USPQ2d 1911, 1914 (Fed. Cir. 1999) (citing *Cybor*, 138 F.3d at 1462-63, 46 USPQ2d at 1179-81 (Plager and Bryson, JJ., concurring separately)).

A. Claims 1 and 23

The district court summarily found claims 1 and 23 invalid under 35 U.S.C. §102(b), stating only that “[Adobe] Photoshop discloses each and every limitation contained in independent claims 1 and 23.” On appeal, Apple claims legal error in this finding of anticipation, and in the underlying claim interpretation of the terms “windows” and “simultaneously active.” Finding no legal error in the district court's claim construction, we affirm the district court's judgment of invalidity of claims 1 and 23.

1. Apple first asserts that the district court's interpretation of “window” is in error because the court improperly ignored the distinction in the patent specification between “windows” and “menus.” According to Apple, the palette of Adobe Photoshop is a type of menu (a “tear-off” menu) and, therefore, not a window within the meaning of the '540 patent. The court's misinterpretation of the term “window,” claims Apple, led the court to erroneously find Adobe Photoshop anticipatory.

Apple argues that the '540 patent specification separately refers to both windows and menus, and the specification describes how menus may be included within windows. Therefore, according to Apple, windows and menus are distinguished. Apple further argues that the windows of the '540 patent are limited to windows in which data is displayed, and data cannot include commands. In support of this argument, Apple points to language in claims 1 and 23 requiring the display of “data” and to portions of the specification that distinguish data from commands or functions.

Apple's interpretation of “windows” necessarily excludes menus or palettes, since these graphical features are distinct and since these features display functions, not data. Based on this interpretation, Adobe Photoshop is not anticipatory since it contains only one window within Apple's definition.

[1] We are not persuaded by Apple's arguments. Notwithstanding Apple's arguments to the contrary, the evidence fully supports the district court's construction of the term “window.” According to the written description of the '540 patent, “windows” “may take the form of a variety of objects, such [as] a file folder, loose leaf binders, or simple rectangles.” Col. 1, lines 48-50. The written description further teaches that the windows of Apple's invention “include defined areas having window features such as

menu bars, command options, text, icons, *and/or* button functions to be executed by the CPU.” Col. 3, lines 8-11 (emphasis added). Taking the language of the '540 patent at face value, a simple icon that performs a button function is a “window.” Thus, the palette of Adobe Photoshop, incorporating a number of function keys within a defined area, is surely a “window” for the purposes of the '540 patent. Moreover, this broad definition of the term “window” is not at odds with the common definition of those skilled in the art. Indeed, as demonstrated by the very references cited in the '540 patent specification, menu bars or buttons are commonly understood to be types of windows by those skilled in the art. 5

[2] Similarly, in light of the clear language of the specification, Apple’s argument that the window of its invention must include data in the form of text, as opposed to mere functions or commands, is equally unavailing.

First, we reject Apple’s contention that claims 1 and 23 (and the corresponding dependent claims) require windows containing “data” that a user may operate on. This recitation

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of “data” in the claimed windows appears in the preambles of claims 1 and 23. The body of claim 23 also refers to data in the windows, but only as a possibility, not as a requirement. Thus, if the “windows” of the claimed invention are to be limited to windows containing “data,” this limitation must come from the preambles of claims 1 and 23. Language in a claim preamble, however, acts as a claim limitation only when such language serves to “give meaning to a claim and properly define the invention,” not when the preamble merely states a purpose or intended use of the invention. *In re Paulsen*, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994) (quoting *DeGeorge v. Bernier*, 768 F.2d 1318, 1322 n.3, 226 USPQ 758, 766 n.3 (Fed. Cir. 1985)). Viewing the claims as a whole and in light of the written description, the recitation of “data” in the preambles of claims 1 and 23 does not give meaning to these claims nor serve to define the invention. Instead, the term “data” refers to a purpose or intended use of the windows of the claimed invention.

Second, even if we were to find that the recitation of “data” in the claim preambles acts as a claim limitation, we would conclude that this term is used in a broad sense, and that this broad meaning of data is consistent with the district court’s interpretation of the term “window.” The written description uses the term “data” to include both text and command features:

The access window 130 includes a working area 145 in which the CPU 52 displays instructions, text or *command options*. The working area 145 includes a vertical slider 148 for scrolling through *data* displayed within the working area 145.

(emphasis added) Col. 8, lines 14-16. Thus, the term “data” cannot exclude commands, as argued by Apple.

Finally, we also note that the preferred embodiment of the '540 patent further suggests that Apple’s narrow interpretation of “data” cannot be correct. Claims 1 and 23 specify that the user may operate on the “data” displayed in the plurality of windows of the invention. 6 In most of the help windows of the preferred embodiment of the '540 patent, however, the only data that may be operated on are icons or command keys, in many instances a command key labeled “HUH?” Therefore, under Apple’s proposed interpretation, there are no data in most of the help windows of its preferred embodiment to be operated on by the user. And while this evidence alone is not necessarily dispositive of the claim construction issue, it further suggests the incorrectness of Apple’s proposed interpretation that the “data” displayed in the windows of its invention does not include icons or command keys.

Accordingly, we reject Apple’s arguments that the district court misconstrued the term “window.”

2. Apple next argues that the district court's construction of "simultaneously active windows" is incorrect in that it improperly fails to lend separate meaning to the requirement that the claimed active windows be operable on. Claim 1, argues Apple, is exemplary of this distinction in the '540 patent in that it first recites that "both" the first and second windows are "simultaneously active," and then, in a separate limitation, requires "said user operating on both said first window and said second window without altering the window order." Apple also argues that this same distinction is present in claim 23 and in the patent specification.

"Operating on a window," Apple insists, must mean manipulating the window or data in the window as if an actual file or other physical object were being manipulated. Thus, Apple claims, an operable window is distinct from an active window. And taking this construction, Adobe Photoshop does not anticipate claims 1 and 23 because, while the tool palette is active, it may not be "operated on" within Apple's proposed definition. It may be moved about the display screen, but it may not be resized, nor may the contents be reorganized, nor may the palette be otherwise manipulated.

[3] We reject this argument as well. The district court correctly found that, in the context of the '540 patent, "active" means available for operation. 7 As the specification describes:

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Using the techniques of the present invention, the presentation window 300 or access window 130 'floats' above other application windows, such as window 302, and are simultaneously active, *thereby allowing the user to operate on both windows 302 and 300 without altering the ordering of the window layers.*

Col. 12, lines 46-55 (emphasis added). In contrast, prior art systems were distinguished in that they required an initial mouse click to activate the window before operation on that window was possible. Thus, "active," in the context of the '540 patent, means available for operation, and the invention of the '540 patent allowed multiple windows to be available for operation (active) without the need of a preliminary mouse click.

As for the separate recitation of the requirements that both windows be active and operable on without changing the ordering of the windows, contrary to Apple's assertions, the district court's interpretation does preserve these separate limitations. The second limitation concerns the effect of a user operating on a window, not the fact that it may be operated on. Both windows could potentially be active (or operable on), yet, operating on the windows could change the display order. In contrast, the claim separately specifies that the windows are both active (operable on) and that operating on these windows will not change their display order; one window "floats" over the other. Thus, both limitations are preserved.

3. Finally, Apple argues that the district court's claim construction improperly causes the claims to read on prior art before the examiner during the prosecution of the '540 patent. Specifically, Apple points to U.S. Patent No. 4,931,783 ("the '783 patent"), issued June 5, 1990, and a manual describing the preferred embodiment of the '783 patent, "Hypercard." Each of these references was considered by the Examiner in the prosecution of the '540 patent. The '783 patent describes "tear-off" menus whereby portions of a menu bar may be "torn off" and moved about the display screen. The Hypercard program includes this "tear-off" menu feature and further allows the simultaneous operation of a palette of commands with a document window. When operated in this manner, Hypercard strongly resembles the window and palette format of Adobe Photoshop. Apple argues, therefore, that the district court's interpretation reads on the '783 patent and the Hypercard product and that the claims of the '540 patent must be interpreted more narrowly to avoid the prior art before the examiner during prosecution.

[4] We reject this final argument as well. To be sure, the district court's claim construction does cause the claims to read on the Hypercard program. This does not, however, negate the district court's claim construction or finding of anticipation. Indeed, it provides further evidence that the claimed invention of the '540 patent was not novel.

The palette feature of the Hypercard program was in no way evident from the manual submitted during the prosecution of the '540 patent. Moreover, in submitting this reference, Apple directed the Examiner's attention to another feature, the "message box," and made no mention of the palette feature. Similarly, it is not evident from the specification of the '783 patent that the tear off menu feature allowed the user to superimpose such a menu window over any other window. Nor is it taught that such superimposed windows are simultaneously active and will not change order when operated upon. Thus, the fact that the examiner allowed the claims of the '540 patent over these references does not support Apple's attempt to narrow its claims to avoid certain features disclosed in these references.

In addition, while Apple is correct that "claims should be read in a way that avoids ensnaring prior art if it is possible to do so," (*Eastman Kodak Co. v. Goodyear Tire & Rubber Co.*, 114 F.3d 1547, 1556, 42 USPQ2d 1737, 1743 (Fed. Cir. 1998)), here it is not possible to do so. Where "the only claim construction that is consistent with the claim's language and the written description renders the claim invalid, then the axiom does not apply and the claim is simply invalid." *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345, 51 USPQ2d 1377, 1379 (Fed. Cir. 1999). See also *Becton Dickinson & Co. v. C.R. Bard, Inc.*, 922 F.2d 792, 799 & n.6, 17 USPQ2d 1097, 1102 & n.6 (Fed. Cir. 1990) (judicial redrafting of claims to preserve validity is impermissible). We are convinced that claims 1 and 23 are simply invalid.

In conclusion, we find none of Apple's arguments persuasive. We therefore affirm the district court's summary judgment of invalidity of claims 1 and 23.

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B. Claims 2 and 15

Having found claims 1 and 23 anticipated by Adobe Photoshop, the district court concluded that the other asserted claims, each dependent upon claims 1 or 23, were also anticipated by this same reference. With respect to claims 2 and 15, however, the court further noted that, while these claims defined the first window as a help access window, this additional limitation was also met by Adobe Photoshop. Apple claims legal error in the district court's failure to consider these claims individually and in its broad construction of the term "help access window." We agree.

[5] As Apple correctly points out, each claim of a patent is "presumed valid independently of ... the other claims" and "dependent ... claims shall be presumed valid even though dependent upon an invalid claim." 35 U.S.C. § 282 (1994); *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 446, 230 USPQ2d 416, 418 (Fed. Cir. 1986). Thus, the district court improperly concluded that the dependent claims were invalid. Moreover, with respect to claims 2 and 15, the district court's interpretation of "help access window" was so broad as to read the "help" limitation out of the claim. In support of the district court's construction of "help access window," Articulate points to the language of claim 2 and to the prosecution history. 8 Articulate notes that, as originally filed, claim 2 did not specify the meaning of help access window. Then, in response to an indefiniteness rejection, Apple broadly defined the help access window as: "said help access window being a window that contains one or more user interface controls for accessing information related to software that is loaded on said CPU." Having adopted such a broad definition within the text of the claim, Articulate argues, Apple cannot now narrow that definition. Accordingly, Articulate asserts that the district court's finding of

anticipation of claims 2 and 15 was correct.

[6] We cannot accept this argument. The claim interpretation Articulate asserts focuses on the words following “help access window” and ignores the limitation imposed by the word “help.” The undeniably broad statement recited in claim 2 (and incorporated into claim 15) simply cannot read the qualifier “help” out of the definition of “help access window.” Rather, the claim must be viewed as a whole. *Gen. Foods Corp. v. Studiengesellschaft Kohl mbH*, 972 F.2d 1272, 1274, 23 USPQ2d 1839, 1840 (Fed. Cir. 1992) (“each claim is an entity that must be considered as a whole”). Doing so reveals that the claimed window is not intended to access just any information on the CPU; it is intended to access help information. Moreover, the claim must be interpreted in light of the teachings of the written description and purpose of the invention described therein. *Strattec Sec. Co. v. Gen. Auto. Specialty Co., Inc.*, 126 F.3d 1411, 1417, 44 USPQ2d 1030, 1034-5 (Fed. Cir. 1997) (holding that it was legal error for the district court to instruct the jury that the term “sheet” was not properly considered part of the claim); *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1479, 45 USPQ2d 1498, 1503 (Fed. Cir. 1998) (relying, in part, on the stated purpose of the invention in construing the claims). Reading the claim in this context reveals that the help access window serves to access help information from a help system or database. The written description describes in great detail how the help access window of the invention allows a user to access help information from the computer system. See '540 patent, col. 7, line 61 – col. 10, line 16.

Thus, this limitation cannot be given the broad interpretation adopted by the district court, and instead should be construed as follows:

help access window – a window that contains one or more controls for accessing help information from a help system or database that has been loaded on the central processing unit (CPU).

Applying this construction of “help access window” Adobe Photoshop cannot anticipate claims 2 and 15 since the palette window cannot be considered a help access window.

This does not end the inquiry, however, because claims 2 and 15 may still be obvious in light of Adobe Photoshop and other prior art. The district court, having found the claims anticipated, never addressed the question of obviousness. Thus, we have no holding of obviousness to review. Accordingly, we remand the question of obviousness to the district court.

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C. Claims 17, 18, and 24-26

As noted above, having found claims 1 and 23 anticipated by Adobe Photoshop, the court concluded that the remaining asserted claims, all dependent from claims 1 and 23, were similarly anticipated. On appeal, Apple argues that the court erred in not separately considering the validity of each asserted claim. As also noted above, we agree with Apple that the court should have separately considered each claim. Nonetheless, there is ample evidence to affirm the district court's judgment that the remaining claims are anticipated by Adobe Photoshop.

Dependent claims 17, 18, and 24-26 are all very similar to the independent claims 1 and 23, and the additional limitations in these dependent claims are all found in Adobe Photoshop. Claims 17 and 24 recite an additional limitation of a “selective positioning” feature. It is uncontested that the palette and the drawing window of Adobe Photoshop may each be positioned selectively. Claim 25 includes the additional limitation that “said first layer is a highest window layer and second layer is a next-to-highest window layer.” It is equally uncontested that the drawing window and palette of Adobe Photoshop meet

this limitation. Finally, claims 18 and 26 further require the generation of a third window at a third window layer, where the third window is inactive when the first and second windows are active. It is uncontested that Adobe Photoshop also meets this requirement.

Accordingly, we see no error in the district court's ultimate conclusion that Adobe Photoshop anticipates claims 17, 18, and 24-26. This judgment of the district court is affirmed.

D. Claim 16

It is unclear from the district court's opinion why it held claim 16 invalid. The court never specifically discussed this claim in its opinion, aside from finding that claims dependent from claims 1 and 23, as a group, were anticipated by Adobe Photoshop. And while claim 16 is dependent from claim 1, the court's finding of anticipation cannot apply to claim 16 because Articulate never argued anticipation with respect to this claim. Thus, there is no factual dispute that claim 16 is not anticipated, and the district court has not made any specific factual findings to the contrary. In the absence of any factual support, the district court's holding of anticipation of claim 16 must be reversed.

On appeal, both parties agree that the district court must have invalidated claim 16 as obvious over the prior art. This was the basis asserted by Articulate in its motion for summary judgment. The district court, however, failed to address Articulate's arguments of obviousness, aside from a passing reference to the '540 patent being "anticipated or rendered obvious by the Photoshop software." Accordingly, we are left to speculate as to the legal and factual bases for the court's decision. This record is simply insufficient for meaningful review.

One attacking the validity of a patent must present clear and convincing evidence establishing facts that lead to the legal conclusion of invalidity. 35 U.S.C. §282. To establish invalidity under 35 U.S.C. § 103, certain factual predicates are required before the legal conclusion of obviousness or nonobviousness can be reached. The underlying factual determinations to be made are (1) the scope and content of the prior art; (2) the differences between the claimed invention and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of non-obviousness, such as commercial success, long-felt but unsolved need, failure of others, copying, and unexpected results. *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467(1966). While the district court did recite the correct legal standard for an obviousness determination and did enumerate the *Graham* factors, it apparently never applied this legal standard nor made any factual findings with respect to the *Graham* factors. A failure to enumerate and analyze the *Graham* factors explicitly is not necessarily reversible error, provided the proper factual determinations were made and the court considered them in rendering its conclusion of obviousness. *Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 990, 6 USPQ2d 1601, 1607(Fed. Cir. 1988). Here, however, the record is virtually silent, and we can only conclude that the district court failed to make the requisite factual findings. Thus, we have no basis for reviewing the court's legal determination and must vacate the court's summary judgment of obviousness with respect to claim 16 and remand this matter for analysis by the district court. *Greenwood v. Hattori Seiko Co.*, 99 F.2d 238, 239,

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14 USPQ2d 1474, 1476(Fed. Cir. 1990); *Bausch and Lomb*, 796 F.2d at 446, 230 USPQ at 419.

III

On cross appeal, Articulate argues that the district court erred in failing to find the present case an exceptional case. Articulate contends that the district court did not properly consider Apple's conduct in light of all circumstances and erred in accepting Apple's argument that it reasonably investigated the merits of its claim before bringing suit. A district court's determination that a case is exceptional is a

factual determination that we review for clear error. *Cybor*, 138 F.3d at 1460, 46 USPQ2d at 1178. We find no clear error here warranting a reversal of the district court's judgment.

Contrary to Articulate's allegations, we see no indication that the district court considered the alleged evidence of bad faith in isolation, rather than as a whole. The district court considered Articulate's arguments and concluded that "Apple, like other similarly situated patentees, diligently polices its intellectual property."

With regard to the issue of Apple's pretrial investigation, as Articulate points out, the district court concluded that the only objective evidence supporting Apple's declaration concerning its pretrial investigations was a single entry in Apple's privilege log. And the infringement opinion corresponding to this privilege log entry was never produced, nor was it ever reviewed by the district court. We note, however, that Apple offered to produce this document for the court's *in camera* inspection, and the court declined Apple's offer. We conclude, therefore, that the court must have been satisfied based on all of the evidence, including the declaration of counsel for Apple and the court's familiarity with the parties based on their conduct during the entire course of the trial, that Apple conducted an adequate pretrial investigation. We see no clear error in this judgment.

The judgment of the district court denying Articulate's cross claim is affirmed.

Each party shall bear its own costs.

AFFIRMED-IN-PART, REVERSED-IN-PART, VACATED-IN-PART, AND REMANDED.

Footnotes

¹ *Apple Computer v. Articulate Sys., Inc.*, No. C-96-20421-JW (N.D. Cal. Oct. 6, 1998).

² A "tear-off" menu is a menu bar or window that may be repositioned at will to different locations on the display screen.

³ Apparently, the district court found claim 16 to be invalid for obviousness as well.

⁴ In finding the '540 patent anticipated, the district court applied 35 U.S.C. § 102(b), finding that Adobe Photoshop was on sale in the United States more than one year before the filing of the application that led to the '540 patent. While Apple takes exception to the district court's finding of invalidity, it does not dispute the prior sale of the Adobe Photoshop software, nor does it dispute the characterization of that software.

⁵ We acknowledge Apple's assertion that a patentee is free to be his own lexicographer, and may define claim terms in ways that differ from the common understanding of those skilled in the art. *Autogiro Co. of Am. v. United States*, 384 F.2d 391, 397, 155 USPQ 697, 702 (Ct. Cl. 1967). In order to do so, however, a patentee must deliberately and clearly point out how these terms differ from the conventional understanding. *Renishaw PLC v. Marposs Societa' Per Azioni*, 158 F.3d 1243, 1249, 48 USPQ2d 1117, 1121 (Fed. Cir. 1998). Apple did not do so here. Instead, Apple described the term "window" in a manner that was consistent with its definition in the pertinent art. Moreover, rather than specifying a narrower meaning for this term, Apple taught that the terms of its claims were to be construed broadly. See Col. 16, lines 25-26.

⁶ The preamble of claim 1 recites that the plurality of windows contains data that may be operated on by the user. The body of claim 23 recites that a user may operate on the windows or data disposed in the windows.

⁷ Specifically, the district court found that "'active' means simultaneously available for operation." Viewed in context,

however, the court actually defined “simultaneously active” in order to construe the limitation “simultaneously active windows.”

8. Claim 15 depends from claim 2 and incorporates its definition of help access window.

- End of Case -

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FULL TEXT OF CASES (USPQ2D)

All Other Cases

In re Fine (CA FC) 5 USPQ2d 1596 (1/26/1988)

In re Fine (CA FC) 5 USPQ2d 1596

In re Fine**U.S. Court of Appeals Federal Circuit****5 USPQ2d 1596****Decided January 26, 1988****No. 87-1319****Headnotes****PATENTS****1. Patentability/Validity -- Obviousness -- Evidence of (§ 115.0903)**

Patent and Trademark Office improperly rejected claimed invention for obviousness since nothing in cited references, either alone or in combination, suggests or teaches claimed invention, since there is consequently no support for PTO's conclusion that substitution of one type of detector for another in prior art system, resulting in claimed invention, would have been obvious, and since PTO therefore failed to satisfy its burden of establishing prima facie case of obviousness by showing some objective teaching or generally available knowledge that would lead one skilled in art to combine teachings of existing references.

2. Patentability/Validity -- Obviousness -- In general (§ 115.0901)

Obviousness is tested by what combined teachings of prior art references would have suggested to those of ordinary skill in art, not by whether particular combination of elements from such references might have been "obvious to try."

3. Patentability/Validity -- Obviousness -- Evidence of (§ 115.0903)

Patent and Trademark Office erred, in rejecting as obvious system for detecting and measuring minute quantities of nitrogen compounds, by failing to recognize that appealed claims can be distinguished over combination of prior art references, in view of evidence demonstrating that prior art does not teach

claimed temperature range, despite some overlap of preferred temperature ranges for claimed invention and prior art, since purposes of preferred temperature ranges are different and overlap is mere happenstance.

4. Patentability/Validity -- Obviousness -- In general -- (§ 115.0901)

Dependent claims are non-obvious under 35 USC 103 if claims from which they depend are non-obvious.

Case History and Disposition:

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Appeal from the U.S. Patent and Trademark Office Board of Patent Appeals and Interferences.

Application for patent by David H. Fine, Serial No. 512,374. From decision of Board of Patent Appeals and Interferences affirming rejection of application, applicant appeals. Reversed; Smith, circuit judge, dissenting with opinion.

Attorneys:

Morris Relson and Darby & Darby, New York, N.Y., (Beverly B. Goodwin with them on the brief) for appellant.

Lee E. Barrett, associate solicitor, Arlington, Va., (Joseph F. Nakamura, solicitor, and Fred E. McKelvey, deputy solicitor, with him on the brief) for appellee.

Judge:

Before Friedman, Smith, and Mayer, circuit judges.

Opinion Text

Opinion By:

Mayer, J.

David H. Fine appeals from a decision of the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office (Board) affirming the rejection of certain claims of his application, Serial No. 512,374, and concluding that his invention would have been obvious to one of ordinary skill in the art and was therefore unpatentable under 35 U.S.C. §103. We reverse.

Background

A. The Invention .

The invention claimed is a system for detecting and measuring minute quantities of nitrogen compounds. According to Fine, the system has the ability to detect the presence of nitrogen compounds in quantities as minute as one part in one billion, and is an effective means to detect drugs and explosives, which emanate nitrogen compound vapors even when they are concealed in luggage and

closed containers.

The claimed invention has three major components: (1) a gas chromatograph which separates a gaseous sample into its constituent parts; (2) a converter which converts the nitrogen compound effluent output of the chromatograph into nitric oxide in a hot, oxygen-rich environment; and (3) a detector for measuring the level of nitric oxide. The claimed invention's sensitivity is achieved by combining nitric oxide with ozone to produce nitrogen dioxide which concurrently causes a detectable luminescence.

The luminescence, which is measured by a visual detector, shows the level of nitric oxide which in turn is a measure of nitrogen compounds found in the sample.

The appealed claims were rejected by the Patent and Trademark Office (PTO) under 35 U.S.C. §103. Claims 60, 63, 77 and 80 were rejected as unpatentable over Eads, Patent No. 3,650,696 (Eads) in view of Warnick, et al., Patent No. 3,746,513 (Warnick). Claims 62, 68, 69, 79, 85 and 86 were rejected as unpatentable over Eads and Warnick in view of Glass, et al., Patent No. 3,207,585 (Glass).

B. The Prior Art .

1. Eads Patent .

Eads discloses a method for separating, identifying and quantitatively monitoring sulfur compounds. The Eads system is used primarily in "air pollution control work in the scientific characterization of odors from sulfur compounds."

The problem addressed by Eads is the tendency of sulfur compounds "to adhere to or react with the surface materials of the sampling and analytical equipment, and/or react with the liquid or gaseous materials in the equipment." Because of this, the accuracy

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of measurement is impaired. To solve the problem, the Eads system collects an air sample containing sulfur compounds in a sulfur-free methanol solution. The liquid is inserted into a gas chromatograph which separates the various sulfur compounds. The compounds are next sent through a pyrolysis furnace where they are oxidized to form sulfur dioxide. Finally, the sulfur dioxide passes through a measuring device called a microcoulometer which uses titration cells to calculate the concentration of sulfur compounds in the sample.

2. Warnick Patent .

Warnick is directed to a means for detecting the quantity of pollutants in the atmosphere. By measuring the chemiluminescence of the reaction between nitric oxide and ozone, the Warnick device can detect the concentration of nitric oxide in a sample gaseous mixture.

Warnick calls for "continuously flowing" a sample gaseous mixture and a reactant containing ozone into a reaction chamber. The chemiluminescence from the resulting reaction is transmitted through a light-transmitting element to produce continuous readouts of the total amount of nitric oxide present in the sample.

3. Glass Patent.

The invention disclosed in Glass is a device for "completely burning a measured amount of a substance and analyzing the combustion products." A fixed amount of a liquid petroleum sample and oxygen are supplied to a flame. The flame is then spark-ignited, causing the sample to burn. The resulting combustion products are then collected and measured, and from this measurement the hydrogen concentration in the sample is computed.

C. The Rejection .

The Examiner rejected claims 60, 63, 77 and 80 because "substitution of the [nitric oxide] detector of Warnick for the sulfur detector of Eads would be an obvious consideration if interested in nitrogen compounds, and would yield the claimed invention." He further asserted that "Eads teaches the

[claimed] combination of chromatograph, combustion, and detection, in that order. . . . Substitution of detectors to measure any component of interest is well within the skill of the art." In rejecting claims 62, 68, 69, 79, 85 and 86, the Examiner said, "Glass et al. teach a flame conversion means followed by a detector, and substitution of the flame conversion means of Glass et al. for the furnace of Eads would be an obvious equivalent and would yield the claimed invention." The Board affirmed the Examiner's rejection.

Discussion

A. Standard of Review .

Obviousness under 35 U.S.C. §103 is " 'a legal conclusion based on factual evidence.' " *Stratoflex, Inc. v. Aeroquip Corp.* , 713 F.2d 1530, 1535, 218 USPQ 871, 876 (Fed. Cir. 1983) (quoting *Stevenson v. Int'l Trade Comm'n* , 612 F.2d 546, 549, 204 USPQ 276, 279 (CCPA 1979)). Therefore, an obviousness determination is not reviewed under the clearly erroneous standard applicable to fact findings, *Raytheon Co. v. Roper Corp.* , 724 F.2d 951, 956, 220 USPQ 592, 596 (Fed. Cir. 1983); it is "reviewed for correctness or error as a matter of law." *In re De Blauwe* , 736 F.2d 699, 703, 222 USPQ 191, 195 (Fed. Cir. 1984).

To reach a proper conclusion under §103, the decisionmaker must step backward in time and into the shoes worn by [a person having ordinary skill in the art] when the invention was unknown and just before it was made. In light of *all* the evidence, the decisionmaker must then determine whether . . . the claimed invention as a whole would have been obvious at *that* time to *that* person. 35 U.S.C. §103. The answer to that question partakes more of the nature of law than of fact, for it is an ultimate conclusion based on a foundation formed of all the probative facts.

Panduit Corp. v. Dennison Mfg. Co. , 810 F.2d 1561, 1566, 1 USPQ2d 1593, 1595-96 (Fed. Cir. 1987).

B. Prima Facie Obviousness .

Fine says the PTO has not established a *prima facie* case of obviousness. He contends the references applied by the Board and Examiner were improperly combined, using hindsight reconstruction, without evidence to support the combination and in the face of contrary teachings in the prior art. He argues that the appealed claims were rejected because the PTO thought it would have been "obvious to try" the claimed invention, an unacceptable basis for rejection.

[1] We agree. The PTO has the burden under section 103 to establish a *prima facie* case of obviousness. See *In re Piasecki* , 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-87 (Fed. Cir. 1984). It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. *In re Lalu* , 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984); see also *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.* ,

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776 F.2d 281, 297 n.24, 227 USPQ 657, 667 n.24 (Fed. Cir. 1985); *ACS Hosp. Sys., Inc. v. Montefiore Hosp.* , 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). This it has not done. The Board points to nothing in the cited references, either alone or in combination, suggesting or teaching Fine's invention.

The primary basis for the Board's affirmance of the Examiner's rejection was that it would have been obvious to substitute the Warnick nitric oxide detector for the Eads sulfur dioxide detector in the Eads system. The Board reiterated the Examiner's bald assertion that "substitution of one type of detector for another in the system of Eads would have been within the skill of the art," but neither of them offered any support for or explanation of this conclusion.

Eads is limited to the analysis of sulfur compounds. The particular problem addressed there is the difficulty of obtaining precise measurements of sulfur compounds because of the tendency of sulfur dioxide to adhere to or react with the sampling analytic equipment or the liquid or gaseous materials in

the equipment. It solves this problem by suggesting that the gaseous sample containing sulfur compounds be absorbed into sulfur-free methanol and then inserted into a gas chromatograph to separate the sulfur compounds.

There is no suggestion in Eads, which focuses on the unique difficulties inherent in the measurement of sulfur, to use that arrangement to detect nitrogen compounds. In fact, Eads says that the presence of nitrogen is undesirable because the concentration of the titration cell components in the sulfur detector is adversely affected by substantial amounts of nitrogen compounds in the sample. So, instead of suggesting that the system be used to detect nitrogen compounds, Eads deliberately seeks to avoid them; it warns against rather than teaches Fine's invention. *See W. L. Gore & Assoc. v. Garlock, Inc.*, 721 F.2d 1540, 1550, 220 USPQ 303, 311 (Fed. Cir. 1983) (error to find obviousness where references "diverge from and teach away from the invention at hand"). In the face of this, one skilled in the art would not be expected to combine a nitrogen-related detector with the Eads system. Accordingly, there is no suggestion to combine Eads and Warnick.

Likewise, the teachings of Warnick are inconsistent with the claimed invention, to some extent. The Warnick claims are directed to a gas stream from engine exhaust "continuously flowing the gaseous mixtures into the reaction chamber" to obtain "continuous readouts" of the amount of nitric oxide in the sample. The other words, it contemplates measuring the total amount of nitric oxide in a continuously flowing gaseous mixture of unseparated nitrogen constituents. By contrast, in Fine each nitrogen compound constituent of the gaseous sample is retained in the Chromatograph for an individual time period so that each exists in discrete, time-separated pulses. * By this process, each constituent may be both identified by its position in time sequence, and measured. The claimed system, therefore, diverges from Warnick and teaches advantages not appreciated or contemplated by it.

Because neither Warnick nor Eads, alone or in combination, suggests the claimed invention, the Board erred in affirming the Examiner's conclusion that it would have been obvious to substitute the Warnick nitric oxide detector for the Eads sulfur dioxide detector in the Eads system. *ACS Hosp. Sys.*, 732 F.2d at 1575-77, 221 USPQ at 931-33. The Eads and Warnick references disclose, at most, that one skilled in the art might find it obvious to try the claimed invention. But whether a particular combination might be "obvious to try" is not a legitimate test of patentability. *In re Geiger*, 815 F.2d 868, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987); *In re Goodwin*, 576 F.2d 375, 377, 198 USPQ 1, 3 (CCPA 1978).

[2] Obviousness is tested by "what the combined teachings of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys.*, 732 F.2d at 1577, 221 USPQ at 933. And "teachings of references can be combined *only* if there is some suggestion or incentive to do so." *Id.* Here, the prior art contains none.

Instead, the Examiner relies on hindsight in reaching his obviousness determination.

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But this court has said, "To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." *W. L. Gore*, 721 F.2d at 1553, 220 USPQ at 312-13. It is essential that "the decisionmaker forget what he or she has been taught at trial about the claimed invention and cast the mind back to the time the invention was made . . . to occupy the mind of one skilled in the art who is presented only with the references, and who is normally guided by the then-accepted wisdom in the art." *Id.* One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

C. Advantage Not Appreciated by the Prior Art .

[3] The Board erred not only in improperly combining the Eads and Warnick references but also in

failing to appreciate that the appealed claims can be distinguished over that combination. A material limitation of the claimed system is that the conversion to nitric oxide occur in the range of 600°C to 1700°C. The purpose of this limitation is to prevent nitrogen from other sources, such as the air, from being converted to nitric oxide and thereby distorting the measurement of nitric oxide derived from the nitrogen compounds of the sample.

The claimed nitric oxide conversion temperature is not disclosed in Warnick. Although Eads describes a preferred temperature of 675°C to 725°C, the purpose of this range is different from that of Fine. Eads requires the 675°C to 725°C range because it affords a temperature low enough to avoid formation of unwanted sulfur trioxide, yet high enough to avoid formation of unwanted sulfides. Fine's temperature range, in contrast, does not seek to avoid the formation of sulfur compounds or even nitrogen compounds. It enables the system to break down the nitrogen compounds of the sample while avoiding the destruction of background nitrogen gas. There is a partial overlap, of course, but this is mere happenstance. Because the purposes of the two temperature ranges are entirely unrelated, Eads does not teach use of the claimed range. *See In re Geiger*, 815 F.2d at 688, 2 USPQ2d at 1278. The Board erred by concluding otherwise.

D. Unexpected Results .

Because we reverse for failure to establish a *prima facie* case of obviousness, we need not reach Fine's contention that the Board failed to accord proper weight to the objective evidence of unexpected superior results. *Id.*

E. The "Flame" Claims .

[4] Claims 62, 68, 69, 79, 85 and 86 relate to the oxygen-rich flame conversion means of the claimed invention. These "flame" claims depend from either apparatus claim 60 or method claim 77. Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious. *Hartness Int'l, Inc. v. Simplimatic Eng'g Co.*, 819 F.2d 1100, 1108, 2 USPQ2d 1826, 1831 (Fed. Cir. 1987); *In re Abele*, 684 F.2d 902, 910, 214 USPQ 682, 689 (CCPA 1982); *see also In re Sernaker*, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983). In view of our conclusion that claims 60 and 77 are nonobvious, the dependent "flame" claims are also patentable.

Conclusion

The Board's decision affirming the Examiner's rejection of claims 60, 62, 63, 68, 69, 77, 79, 80, 85 and 86 of Fine's application as unpatentable over the prior art under 35 U.S.C. §103 is *REVERSED*.

Footnotes

Footnote *. The Solicitor argues that the contents of Attachment C of Fine's brief were not before the Board and may not properly be considered here. However, we need not rely on Attachment C. It is merely illustrative of the qualitative separation of nitrogen compounds which occurs in Fine's system. The fact that the various constituents exit at discrete intervals is shown by the specification which was before the Board and which may appropriately be considered on appeal. *See, e.g., Astra-Sjuco, A.B. v. United States Int'l Trade Comm'n*, 629 F.2d 682, 686, 207 USPQ 1, 5 (CCPA 1980) (claims must be construed in light of specification).

Dissenting Opinion Text

Dissent By:

Smith, circuit judge, dissenting.

I respectfully dissent. I am of the firm belief that the prior art references, relied upon by the PTO to establish its *prima facie* case of obviousness, in combination teach and suggest Fine's invention to one

skilled in the art. Also, I firmly believe that Fine failed to rebut the PTO's prima facie case. On this basis, I would affirm the board's determination sustaining the examiner's rejection, pursuant to 35 U.S.C. §103, of Fine's claims on appeal before this court.

- End of Case -

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reached on the basis of the facts gleaned from the prior art.

ESTABLISHING A *PRIMA FACIE* CASE OF OBVIOUSNESS

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria.

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). See MPEP § 2144 - § 2144.09 for examples of reasoning supporting obviousness rejections.

When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain why the combination of the teachings is proper. *Ex parte Skinner*, 2 USPQ2d 1788 (Bd. Pat. App. & Inter. 1986). A statement of a rejection that includes a large number of rejections must explain with reasonable specificity at least one rejection, otherwise the examiner procedurally fails to establish a *prima facie* case of obviousness. *Ex parte Blanc*, 13 USPQ2d 1383 (Bd. Pat. App. & Inter. 1989) (Rejection based on nine references which included at least 40 prior art rejections without explaining any one rejection with reasonable

specificity was reversed as procedurally failing to establish a *prima facie* case of obviousness.).

If the examiner determines there is factual support for rejecting the claimed invention under 35 U.S.C. 103, the examiner must then consider any evidence supporting the patentability of the claimed invention, such as any evidence in the specification or any other evidence submitted by the applicant. The ultimate determination of patentability is based on the entire record, by a preponderance of evidence, with due consideration to the persuasiveness of any arguments and any secondary evidence. *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The legal standard of "a preponderance of evidence" requires the evidence to be more convincing than the evidence which is offered in opposition to it. With regard to rejections under 35 U.S.C. 103, the examiner must provide evidence which as a whole shows that the legal determination sought to be proved (i.e., the reference teachings establish a *prima facie* case of obviousness) is more probable than not.

When an applicant submits evidence, whether in the specification as originally filed or in reply to a rejection, the examiner must reconsider the patentability of the claimed invention. The decision on patentability must be made based upon consideration of all the evidence, including the evidence submitted by the examiner and the evidence submitted by the applicant. A decision to make or maintain a rejection in the face of all the evidence must show that it was based on the totality of the evidence. Facts established by rebuttal evidence must be evaluated along with the facts on which the conclusion of obviousness was reached, not against the conclusion itself. *In re Eli Lilly & Co.*, 902 F.2d 943, 14 USPQ2d 1741 (Fed. Cir. 1990).

See *In re Piasecki*, 745 F.2d 1468, 223 USPQ 785 (Fed. Cir. 1984) for a discussion of the proper roles of the examiner's *prima facie* case and applicant's rebuttal evidence in the final determination of obviousness. See MPEP § 706.02(j) for a discussion of the proper contents of a rejection under 35 U.S.C. 103.

2143 Basic Requirements of a *Prima Facie* Case of Obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the refer-

gressional] committee viewed section 103 as including all of the various bars to a patent as set forth in section 102.”).

A 35 U.S.C. 103 rejection is based on 35 U.S.C. 102(a), 102(b), 102(e), etc. depending on the type of prior art reference used and its publication or issue date. For instance, an obviousness rejection over a U.S. patent which was issued more than 1 year before the filing date of the application is said to be a statutory bar just as if it anticipated the claims under 35 U.S.C. 102(b). Analogously, an obviousness rejection based on a publication which would be applied under 102(a) if it anticipated the claims can be overcome by swearing behind the publication date of the reference by filing an affidavit or declaration under 37 CFR 1.131.

For an overview of what constitutes prior art under 35 U.S.C. 102, see MPEP § 901 - § 901.06(d) and § 2121 - § 2129.

II. SUBSTANTIVE CONTENT OF THE PRIOR ART

See MPEP § 2121 - § 2129 for case law relating to the substantive content of the prior art (e.g., availability of inoperative devices, extent to which prior art must be enabling, broad disclosure rather than preferred embodiments, admissions, etc.).

III. CONTENT OF THE PRIOR ART IS DETERMINED AT THE TIME THE INVENTION WAS MADE TO AVOID HINDSIGHT

The requirement “at the time the invention was made” is to avoid impermissible hindsight. See MPEP § 2145, paragraph X.A. for a discussion of rebutting applicants’ arguments that a rejection is based on hindsight.

“It is difficult but necessary that the decisionmaker forget what he or she has been taught . . . about the claimed invention and cast the mind back to the time the invention was made (often as here many years), to occupy the mind of one skilled in the art who is presented only with the references, and who is normally guided by the then-accepted wisdom in the art.” *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

IV. 35 U.S.C. 103(c) — EVIDENCE REQUIRED TO SHOW CONDITIONS OF 35 U.S.C. 103 APPLY

An applicant who wants to avail himself or herself of the benefits of 35 U.S.C. 103(c) has the burden of establishing that subject matter which qualifies as prior art under subsection (e), (f) or (g) of section 102 and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. *Ex parte Yoshino*, 227 USPQ 52 (Bd. Pat. App. & Inter. 1985). Note that for applications filed prior to November 29, 1999, 35 U.S.C. 103(c) is limited on its face to subject matter developed by another person which qualifies as prior art only under subsection (f) or (g) of section 102. See MPEP § 706.02(l)(1). See also *In re Bartfeld*, 925 F.2d 1450, 1453-54, 17 USPQ2d 1885, 1888 (Fed. Cir. 1991) (Applicant attempted to overcome a 35 U.S.C. 102(e)/103 rejection with a terminal disclaimer by alleging that the public policy intent of 35 U.S.C. 103(c) was to prohibit the use of “secret” prior art in obviousness determinations. The court rejected this argument, holding “We may not disregard the unambiguous exclusion of § 102(e) from the statute’s purview.”).

See MPEP § 706.02(l)(2) for the requirements which must be met to establish common ownership.

2141.01(a) Analogous and Nonanalogous Art

TO RELY ON A REFERENCE UNDER 35 U.S.C. 103, IT MUST BE ANALOGOUS PRIOR ART

The examiner must determine what is “analogous prior art” for the purpose of analyzing the obviousness of the subject matter at issue. “In order to rely on a reference as a basis for rejection of an applicant’s invention, the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.” *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) (“A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor’s